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PN - JP2001103536 A 20010413  
PD - 2001-04-13  
PR - JP19990250608 19990903  
OPD- 1999-09-03  
TI - WRIST WATCH TYPE PORTABLE COMMUNICATION TERMINAL  
IN - MATT SNYDER; KAGAMI JUNICHI  
PA - NOKIA MOBILE PHONES LTD  
IC - H04Q7/32 ; A44C5/00 ; H04B7/26 ; H04M1/00 ; H02J7/00  
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TI - Wrist-watch type portable communication terminal has separate batteries provided in band portion and portable communication terminal portion  
PR - JP19990250608 19990903  
PN - JP2001103536 A 20010413 DW200137 H04Q7/32 005pp  
PA - (OYNO ) NOKIA MOBILE PHONES LTD  
- A44C5/00 ; H02J7/00 ; H04B7/26 ; H04M1/00 ; H04M1/02 ; H04M1/05 ; H04Q7/32  
AB - JP2001103536 NOVELTY - The band portion (101) of watch and the portable communication terminal portion (102) are provided with separate batteries. The battery provided in the band portion is either used individually or along with battery in portable communication terminal portion, depending upon operation mode such as talk mode or browser mode of portable communication terminal.  
- USE - Wrist-watch type portable communication terminal.  
- ADVANTAGE - Since separate batteries are provided in band and portable communication terminal portions, electric power supply is adjusted depending on operation modes such as browser mode and talk mode of the portable terminal and hence the wrist-watch type portable communication terminal corresponds to required power consumption.  
- DESCRIPTION OF DRAWING(S) - The figure shows the entire perspective diagram of wrist-watch type portable communication terminal.  
- Band portion 101  
- Portable communication terminal portion 102  
- (Dwg. 1/4)

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PN - 2001-351165 [37]

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AP - JP19990250608 19990903  
IN - MATT SNYDER; KAGAMI JUNICHI  
PA - NOKIA MOBILE PHONES LTD  
TI - WRIST WATCH TYPE PORTABLE COMMUNICATION TERMINAL  
AB - PROBLEM TO BE SOLVED: To provide a wrist watch type portable communication terminal capable of accommodating required power consumption by using different batteries in the browser mode and the talk mode, thereby adjusting the amount of power supply depending on applications.  
- SOLUTION: A band part 101 consists of a lithium polymer and has a function as a 1st battery. A portable communication terminal part 102 has a 2nd battery. The 2nd battery has a charging capacity (about 500 mAH) nearly the same as that of a battery of a conventional wrist watch type portable communication terminal. The charging capacity (about 700 mAH-1000 mAH) of the band part 101 is larger than that of the 2nd battery.  
SI - H02J7/00  
I - H04Q7/32 ; A44C5/00 ; H04B7/26 ; H04M1/00 ; H04M1/02 ; H04M1/05

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H 0 4 B	7/26	1/02	C 5 K 0 2 7
H 0 4 M	1/00	1/05	Z 5 K 0 6 7
1/02		H 0 2 J 7/00	3 0 2 C
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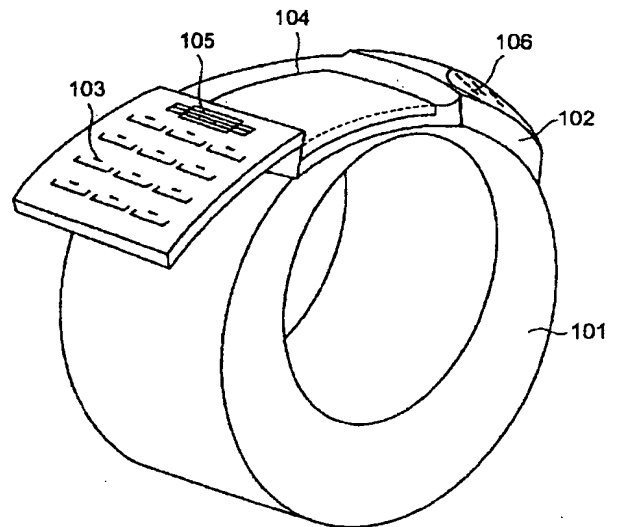
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(54) 【発明の名称】 腕時計型携帯通信端末

(57) 【要約】

【課題】 ブラウザモードとトークモードとで異なるバッテリーを使用することにより、用途に応じて電力供給量を調整し、必要な電力消費に対応できる腕時計型携帯通信端末を提供する。

【解決手段】 バンド部分101はリチウムポリマを構成要素とし、第1のバッテリーとしての機能も持ち、携帯通信端末部分102にも第2のバッテリーが備えられ、第2のバッテリーは、従来の腕時計型携帯通信端末のバッテリーと、ほぼ同程度の蓄電容量(約500mAh)を有しており、バンド部分101でもある第1のバッテリーの蓄電容量(約700mAh~1000mAh)は第2のバッテリーの蓄電容量と比較して大きい。



【特許請求の範囲】

【請求項1】 腕に装着するバンド部分と、前記バンド部分に脱着可能な携帯通信端末部分とで構成され、小電力でも機能するトークモードと、大電力を要するブラウザモードとのモード切換えが可能な腕時計型携帯通信端末において、

前記バンド部分に第1のバッテリーを、  
前記携帯通信端末部分に第2のバッテリーを具備することを特徴とする腕時計型携帯通信端末。

【請求項2】 請求項1に記載の腕時計型携帯通信端末において、

前記第1のバッテリーと、  
前記第2のバッテリーとは、個別で使用する事が可能であることを特徴とする腕時計型携帯通信端末。

【請求項3】 請求項1に記載の腕時計型携帯通信端末において、

前記第1のバッテリーと、  
前記第2のバッテリーとは、組み合わせて使用することが可能であることを特徴とする腕時計型携帯通信端末。

【請求項4】 請求項1に記載の腕時計型携帯通信端末において、

前記第1のバッテリーから、前記第2のバッテリーへの充電が可能であることを特徴とする腕時計型携帯通信端末。

【請求項5】 請求項1に記載の腕時計型携帯通信端末において、

前記第1のバッテリーは、リチウムポリマを構成要素とすることを特徴とする腕時計型携帯通信端末。

【請求項6】 請求項1に記載の腕時計型携帯通信端末において、

前記トークモードでは、サービスエリア内を移動しながらの通話が可能であり、

前記ブラウザモードでは、サービスエリア内を移動しながらの通話と、インターネットを含む他の情報網へのアクセスとが可能であることを特徴とする腕時計型携帯通信端末。

【発明の詳細な説明】

【0001】

【発明の属する技術分野】本発明は、腕時計型携帯通信端末に係り、より詳細には、バンド部分と携帯通信端末部分とにバッテリーを有する腕時計型携帯通信端末に関する。

【0002】

【従来の技術】図3は従来の腕時計型携帯通信端末300装着時の斜視図である。未使用時には、図3(a)に示すように携帯通信端末部分301と、バンド部分302とは接合された状態で携帯される。携帯通信端末部分301はその表面303にスピーカ部304と、キーマトリックス305とを備えており、その側面306にはサイドボタン307を備えている。スピーカ部304か

らは通話相手の声や、呼出音が出力される。また、発信先電話番号を指定するとき、及び通話可能状態にするときにはキーマトリックス305を用いる。そして、サイドボタン307で音量調節等を行う。さらに、使用時には図3(b)に示すように携帯通信端末部分301をバンド部分302から取り外すことが可能である。

【0003】上記に示したような腕時計型携帯通信端末300は、腕時計と同様に携帯性に優れ、小型化も進んでいる。しかしながら、近年の携帯通信端末には、インターネットへのアクセス機能も要求されている。そのため、消費電力が増加し、蓄電容量の増加と、バッテリーの小型化との両立が課題となっている。上記課題を解決する手段として、従来、大きなサイズのL型バッテリーと、小さなサイズのS型バッテリーとを併用する方法が用いられてきた。この方法では、通常の使用状態ではS型バッテリーのみを携帯通信端末に取り付け、バッテリーの充電が長時間不可能な場合などにはL型バッテリーをS型バッテリーに追加して使用する。

【0004】

【発明が解決しようとする課題】しかしながら、L型バッテリーとS型バッテリーとの併用は、携帯通信端末の大きさや重量を増加させてしまい携帯性に欠ける。本発明は、ブラウザモードとトークモードとで異なるバッテリーを使用することにより、用途に応じて電力供給量を調整し、必要な電力消費に対応できる腕時計型携帯通信端末を提供することを目的とする。

【0005】

【課題を解決するための手段】上記目的を達成するために、本発明によれば、腕に装着するバンド部分と、バンド部分に脱着可能な携帯通信端末部分とで構成され、小電力でも機能するトークモードと、大電力を要するブラウザモードとのモード切換えが可能な腕時計型携帯通信端末において、バンド部分に第1のバッテリーを、携帯通信端末部分に第2のバッテリーを具備することを特徴とする腕時計型携帯通信端末を提供できる。

【0006】また、本発明によれば、第1のバッテリーと第2のバッテリーとは、個別で使用する事が可能である。また、本発明によれば、第1のバッテリーと第2のバッテリーとは、組み合わせて使用することも可能である。また、本発明によれば、第1のバッテリーから、第2のバッテリーへの充電が可能である。また、本発明によれば、第1のバッテリーはリチウムポリマを構成要素とする。また、本発明による腕時計型携帯通信端末については、トークモードでは、サービスエリア内を移動しながらの通話が可能であり、ブラウザモードでは、サービスエリア内を移動しながらの通話と、インターネットを含む他の情報網へのアクセスとが可能である。

【0007】

【発明の実施の形態】次に、図1～2、及び図4を参照して本発明による腕時計型携帯通信端末を詳細に説明す

る。図1及び図4は本発明による腕時計型携帯通信端末の全体斜視図であり、図2は本発明による腕時計型携帯通信端末装着時の斜視図である。図1において、本発明の第1の実施の形態である腕時計型携帯通信端末100は、バンド部分101と、バンド部分101に脱着可能な携帯通信端末部分102とで構成されている。バンド部分101は腕時計のバンド部分と同様、腕時計型携帯通信端末本体を使用者の腕に固定するために使われる。さらに、このバンド部分101はリチウムポリマを構成要素とし、第1のバッテリーとしての機能も持つ。一方、携帯通信端末部分102には、キーマトリックス103、表示部104、ロック解除部105、スピーカ106、マイク及びサイドボタン（ともに図示せず）が設けられている。キーマトリックス103は再生キー、ハンズフリーキー、登録キー、\*キー、テンキー等を有し、各種の情報を入力するために用いられる。表示部104には、キーマトリックス103からの入力内容や、他の通信装置からの受信信号に対応する各種情報が表示される。

【0008】携帯通信端末部分102を使用しないときには、表示部104はキーマトリックス103を有する面の下に隠れるかたちで配置されており、外側から見えない状態になっている。そのため、携帯通信端末部分102使用時には表示部104を外側から見えるようにする必要がある。その場合、表示部104が外側から見える位置までキーマトリックス103を有する面をスライドさせる。よって、ロック解除部105はスライドのロックを解除するために設けられている。さらに、携帯通信端末部分102にも第2のバッテリー（図示せず）が備えられている。第2のバッテリーは、従来の腕時計型携帯通信端末のバッテリーと、ほぼ同程度の蓄電容量（約500mAh）を有している。一方、バンド部分101でもある第1のバッテリーの蓄電容量（約700mAh～1000mAh）は、第2のバッテリーの蓄電容量と比較して大きい。

【0009】第1のバッテリーと第2のバッテリーとを備えた理由は、トークモードでの消費電力と、ブラウザモードでの消費電力の大きさに違いがあるからである。ここで、トークモードとは腕時計型携帯通信端末がサービスエリア内を移動しながら通話できるモードのことであり、ブラウザモードとはサービスエリア内を移動しながらの通話と、インターネットへのアクセスとが同時にできるモードのことである。

【0010】トークモードの時は、通話に必要な機能をみたす機構（スピーカ106、マイク、RF回路、ベースバンド機能等）以外は、全てオフ状態になっている。そのため、トークモードの時の消費電力は比較的小さい。一方、ブラウザモードの時は、通話に必要な機能をみたす機構（スピーカ106、マイク、RF回路、ベースバンド機能等）に加え、呼出音を鳴らすための機構

や、表示部104の機能（表示部の照明、送られてきた画像データの表示、画像データとともに送られてきた音声データの再生）をみたすための機構もオン状態になっている。したがって、ブラウザモードの時の消費電力は、トークモードの時の消費電力と比較して大きくなる。

【0011】図2（a）に示すように、携帯通信端末部分102はバンド部分101から取り外すことが可能である。携帯通信端末部分102をバンド部分101から取り外して使用した場合には内蔵された第2のバッテリーのみ使用可能である。よって、図2（a）のように、携帯通信端末部分102をバンド部分101から取り外した状態では、第2のバッテリー電力（約500mAh）のみ使用可能である。トークモードの時は比較的消費電力が小さいため、図2（a）のように携帯通信端末部分102をバンド部分101から取り外した状態で使用しても、長時間の通話が可能である。一方、消費電力の大きいブラウザモードの時には、内蔵された第2のバッテリー電力のみでは長時間の通信が不可能である（約30分）。よって、図2（a）のように携帯通信端末部分102をバンド部分101から取り外した状態で使用した場合より、図2（b）のように携帯通信端末部分102をバンド部分101に取り付けたままで使用するほうが長時間の通信が可能である。なぜなら、この場合、携帯通信端末部分102に内蔵された第2のバッテリーに加え、バンド部分101である第1のバッテリーも使用できるからである。

【0012】図2（b）の状態を利用できるバッテリー電力は、図2（a）の状態を利用できるバッテリー電力の約2.4～3.0倍である。そのため消費電力の大きいブラウザモードでも長時間の通信（約70～90分）が可能になる。また、ブラウザモードと同様、トークモードも使用でき、通話時間も約2.4～3.0倍になることは明らかである。さらに、携帯通信端末部分102に内蔵された第2のバッテリー電力が残り少なくなった場合、あるいは無くなった場合には、バンド部分101である第1のバッテリーから第2のバッテリーへ充電することも可能である。また、図4に示すように、バンド部分401にスベアとして、リチウムポリマとは異なる材質のものをを用いることも可能である。このようなスベアがあれば、第1のバッテリーであるバンド部分101を充電している間も携帯通信端末部分102を使用することが可能となる。

【0013】

【発明の効果】このように、本発明によれば、ブラウザモードとトークモードとで異なるバッテリーを使用することにより、用途に応じて電力供給量を調整し、必要な電力消費に対応できる腕時計型携帯通信端末を提供することができる。

【図面の簡単な説明】

【図1】本発明の第1の実施の形態である腕時計型携帯通信端末の全体斜視図。

【図2】本発明の実施の形態である腕時計型携帯通信端末装着時の斜視図。

【図3】従来の腕時計型携帯通信端末装着時の斜視図。

【図4】発明の第2の実施の形態である腕時計型携帯通

信端末の全体斜視図。

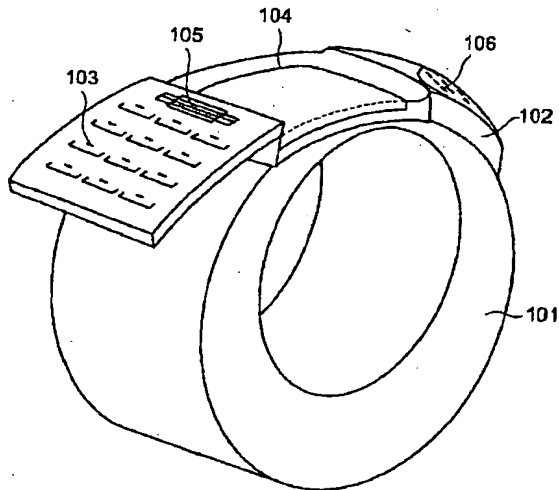
【符号の説明】

100、400：腕時計型携帯通信端末

101：バンド部分

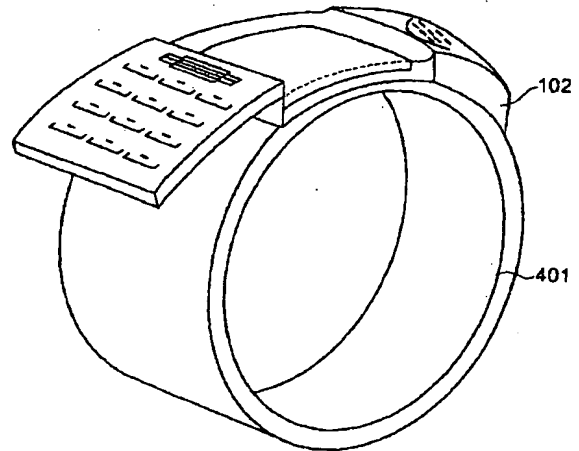
102：携帯通信端末部分

【図1】

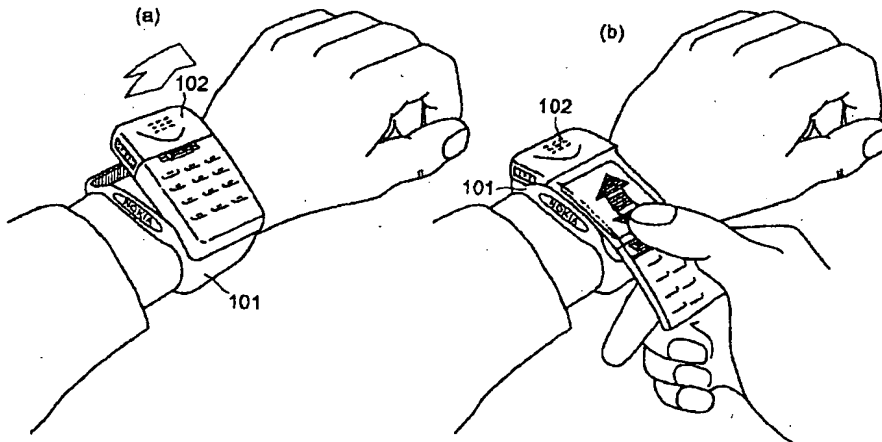


100

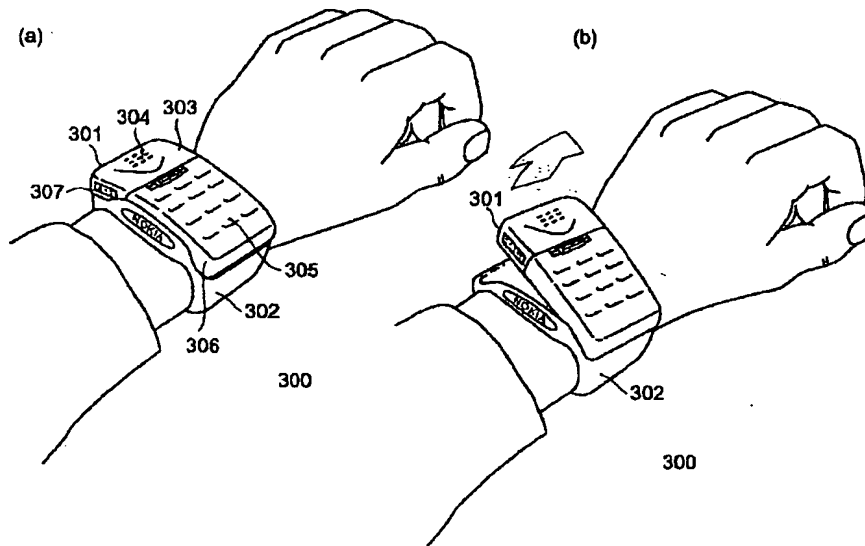
【図4】



【図2】



【図3】



フロントページの続き

(51)Int. Cl.<sup>7</sup>

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// H02J 7/00

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F I

H04B 7/26

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LL04 MM25 MM26 PP02 PP12

5K027 AA11 BB06 GG03 MM17

5K067 AA34 BB01 BB21 EE02 EE32

KK05 KK17

## Technical Field

[The technical field to which invention belongs] This invention relates to a wrist watch mold pocket communication terminal, and relates to the wrist watch mold pocket communication terminal which has a dc-battery in details at a band portion and a pocket communication terminal portion more.

## Prior Art

[Description of the Prior Art] Drawing 3 is a perspective diagram at the time of the conventional wrist watch mold pocket communication terminal 300 wearing. At the time of intact, as shown in drawing 3 (a), the pocket communication terminal portion 301 and the band portion 302 are carried in the condition of having been joined. The pocket communication terminal portion 301 equips the surface 303 with the loudspeaker section 304 and the key matrix 305, and equips the side 306 with the side carbon button 307. A message partner's voice and ringing tone are outputted from the loudspeaker section 304. Moreover, when specifying the dispatch place telephone number, and when changing into the condition which can be talked over the telephone, the key matrix 305 is used. And the side carbon button 307 performs volume control etc. Furthermore, it is possible to remove the pocket communication terminal portion 301 from the band portion 302, as shown in drawing 3 (b) at the time of use.

[0003] The wrist watch mold pocket communication terminal 300 as shown above is excellent in portability like a wrist watch, and the miniaturization is also progressing. However, the accessing function to the Internet is also demanded of the pocket communication terminal in recent years. Therefore, power consumption increases and coexistence with the increment in accumulation-of-electricity capacity and the miniaturization of a dc-battery has been a technical problem. As a means to solve the above-mentioned technical problem, the method of using together the big L type dc-battery of size and the smooth S form dc-battery of small size has been used conventionally. By this method, in the usual busy condition, when long duration is impossible for installation and charge of a dc-battery, an L type dc-battery is used for a smooth S form dc-battery, adding only a smooth S form dc-battery to a pocket communication terminal, and adding.

## Technical Problem

[Problem(s) to be Solved by the Invention] However, the concomitant use with an L type dc-battery and a smooth S form dc-battery makes the magnitude and weight of a pocket communication terminal increase, and lacks in portability. By using a dc-battery which is different by browser mode and the talking mode, this invention adjusts a power supply according to a use, and aims at offering the wrist watch mold pocket communication terminal which can respond to required power consumption.

## Effect of the invention

[Effect of the Invention] Thus, according to this invention, by using a dc-battery which is different by browser mode and the talking mode, a power supply can be adjusted according to a use and the wrist watch mold pocket communication terminal which can respond to required power consumption can be offered.

## Description of the drawings

### [Brief Description of the Drawings]

[Drawing 1] The whole wrist watch mold pocket communication terminal perspective diagram which is the gestalt of operation of the 1st of this invention.

[Drawing 2] The perspective diagram at the time of wrist watch mold pocket communication terminal wearing which is the gestalt of operation of this invention.

[Drawing 3] The perspective diagram at the time of the conventional wrist watch mold pocket communication terminal wearing.

[Drawing 4] The whole wrist watch mold pocket communication terminal perspective diagram which is the gestalt of implementation of the 2nd of invention.

### [Description of Notations]

100,400: Wrist watch mold pocket communication terminal

101: Band portion

102: Pocket communication terminal portion

## Means

[Means for Solving the Problem] A band portion with which an arm is equipped according to this invention in order to attain the above-mentioned purpose, In a wrist watch mold pocket communication terminal in which a mode change with a talking mode which is constituted from a pocket communication terminal portion in which desorption is possible by band portion, and functions also with small power, and browser mode in which large power is required is possible A wrist watch mold pocket communication terminal characterized by providing the 1st dc-battery into a band portion, and providing the 2nd dc-battery into a pocket communication terminal portion can be offered.

[0006] Moreover, according to this invention, it is possible for the 1st dc-battery and 2nd dc-battery to be individual, and to use it. Moreover, according to this invention, it is also possible to combine and use the 1st dc-battery and 2nd dc-battery. Moreover, according to this invention, charge to the 2nd dc-battery from the 1st dc-battery is possible. Moreover, according to this invention, the 1st dc-battery uses a lithium polymer as a component. Moreover, about a wrist watch mold pocket communication terminal by this invention, in a talking mode, a message while moving in the inside of a service area is possible, and a message while moving in browser mode in the inside of a service area, and access to other information networks containing the Internet are possible.

[0007]

[Embodiment of the Invention] Next, with reference to drawing 1 -2 and drawing 4 , the wrist watch mold pocket communication terminal by this invention is explained to details. Drawing 1 and drawing 4 are the whole wrist watch mold pocket communication terminal perspective diagrams by this invention, and drawing 2 is a perspective diagram at the time of wrist watch mold pocket communication terminal wearing by this invention. In drawing 1 , the wrist watch mold pocket communication terminal 100 which is the gestalt of operation of the 1st of this invention consists of a

band portion 101 and a pocket communication terminal portion 102 in which desorption is possible into the band portion 101. Like the band portion of a wrist watch, since a wrist watch mold pocket communication terminal main part is fixed to a user's arm, the band portion 101 is used. Furthermore, this band portion 101 uses a lithium polymer as a component, and also has a function as the 1st dc-battery. On the other hand, the key matrix 103, a display 104, the lock discharge section 105, the loudspeaker 106, the microphone, and the side carbon button (not shown [ both ]) are prepared in the pocket communication terminal portion 102. The key matrix 103 has a playback key, a handsfree key, a registration key, the \* key, a ten key, etc., and it is used in order to input various kinds of information. The various information corresponding to the input signal from the contents of an input from the key matrix 103 and other communication devices is displayed on a display 104.

[0008] When not using the pocket communication terminal portion 102, the display 104 is arranged in the form where it hides in the bottom of the field which has the key matrix 103, and is in the condition that it is not visible from an outside. Therefore, it is necessary to make a display 104 visible from an outside at the time of pocket communication terminal partial 102 use. In that case, a display 104 makes the field which has the key matrix 103 to the location which is visible from an outside slide. Therefore, the lock discharge section 105 is formed in order to cancel the lock of a slide. Furthermore, the pocket communication terminal portion 102 is also equipped with the 2nd dc-battery (not shown). The 2nd dc-battery has an accumulation-of-electricity capacity (about 500 mAH(s)) almost comparable as the dc-battery of the conventional wrist watch mold pocket communication terminal. The accumulation-of-electricity capacity (about 700mAH(s)- 1000 mAH) of the 1st dc-battery which is also the band portion 101 on the other hand is large as compared with the accumulation-of-electricity capacity of the 2nd dc-battery.

[0009] The reason for having had the 1st dc-battery and 2nd dc-battery is that a difference is in the magnitude of the power consumption in a talking mode, and the power consumption in browser mode. Here, a talking mode is the mode which can talk over the telephone while a wrist watch mold pocket communication terminal moves in the inside of a service area, and browser mode is the mode as for which message while moving in the inside of a service area, and access to the Internet are made to coincidence.

[0010] It is turned [ all of except for the devices (a loudspeaker 106, a microphone, RF circuit, baseband function, etc.) in which a function required for a message is filled ] off at the time of a talking mode. Therefore, there is comparatively little power consumption at the time of a talking mode. On the other hand, in addition to the devices (a loudspeaker 106, a microphone, RF circuit, baseband function, etc.) in which a function required for a message is filled, the device for sounding ringing tone and the device for filling the function (the lighting of a display, the display of the sent image data, playback of the voice data sent with image data) of a display 104 are also turned on at the time of browser mode. Therefore, the power consumption at the time of browser mode becomes large as compared with the power consumption at the time of a talking mode.

[0011] As shown in drawing 2 (a), the pocket communication terminal portion 102 can be removed from the band portion 101. When the pocket communication terminal portion 102 is removed and used from the band portion 101, only the 2nd built-in dc-battery is usable. Therefore, like drawing 2 (a), where the pocket communication terminal portion 102 is removed from the band portion 101, only the 2nd dc-battery power (about 500 mAH(s)) is usable. Since power consumption is comparatively

small, even if it uses the pocket communication terminal portion 102 in the condition of having removed from the band portion 101, like drawing 2 (a), a prolonged message is possible for the time of a talking mode. The communication link of long duration is impossible only with the 2nd dc-battery power built in on the other hand at the time of the large browser mode of power consumption (about 30 minutes).

Therefore, the communication link of a long time [ way / which is used attaching the pocket communication terminal portion 102 in the band portion 101 like drawing 2 (b) ] is more possible than the case where the pocket communication terminal portion 102 is used in the condition of having removed from the band portion 101, like drawing 2 (a). It is because the 1st dc-battery which is the band portion 101 can also be used in addition to the 2nd dc-battery built in the pocket communication terminal portion 102 in this case.

[0012] The dc-battery power which can be used in the state of drawing 2 (b) is about 2.4 to 3.0 times the dc-battery power which can be used in the state of drawing 2 (a). Therefore, the communication link (about 70 - 90 minutes) of long duration is attained also in the large browser mode of power consumption. Moreover, it is clear that can also use a talking mode and duration of a call also increases about 2.4 to 3.0 times like browser mode. Furthermore, when the 2nd dc-battery power built in the pocket communication terminal portion 102 runs short, or when it is lost, it is also possible to charge to the 2nd dc-battery from the 1st dc-battery which is the band portion 101. Moreover, as shown in drawing 4 , it is also possible to use the thing of the different quality of the material from a lithium polymer for the band portion 401 as a spare. If there is such a spare, also while having charged the band portion 101 which is the 1st dc-battery, it will become possible to use the pocket communication terminal portion 102.

## Detailed Description of the invention

[0001]

[The technical field to which invention belongs] This invention relates to a wrist watch mold pocket communication terminal, and relates to the wrist watch mold pocket communication terminal which has a dc-battery in details at a band portion and a pocket communication terminal portion more.

[0002]

[Description of the Prior Art] Drawing 3 is a perspective diagram at the time of the conventional wrist watch mold pocket communication terminal 300 wearing. At the time of intact, as shown in drawing 3 (a), the pocket communication terminal portion 301 and the band portion 302 are carried in the condition of having been joined. The pocket communication terminal portion 301 equips the surface 303 with the loudspeaker section 304 and the key matrix 305, and equips the side 306 with the side carbon button 307. A message partner's voice and ringing tone are outputted from the loudspeaker section 304. Moreover, when specifying the dispatch place telephone number, and when changing into the condition which can be talked over the telephone, the key matrix 305 is used. And the side carbon button 307 performs volume control etc. Furthermore, it is possible to remove the pocket communication terminal portion 301 from the band portion 302, as shown in drawing 3 (b) at the time of use.

[0003] The wrist watch mold pocket communication terminal 300 as shown above is excellent in portability like a wrist watch, and the miniaturization is also progressing. However, the accessing function to the Internet is also demanded of the pocket communication terminal in recent years. Therefore, power consumption increases and coexistence with the increment in accumulation-of-electricity capacity and the miniaturization of a dc-battery has been a technical problem. As a means to solve the above-mentioned technical problem, the method of using together the big L type dc-battery of size and the smooth S form dc-battery of small size has been used conventionally. By this method, in the usual busy condition, when long duration is impossible for installation and charge of a dc-battery, an L type dc-battery is used for a smooth S form dc-battery, adding only a smooth S form dc-battery to a pocket communication terminal, and adding.

[0004]

[Problem(s) to be Solved by the Invention] However, the concomitant use with an L type dc-battery and a smooth S form dc-battery makes the magnitude and weight of a pocket communication terminal increase, and lacks in portability. By using a dc-battery which is different by browser mode and the talking mode, this invention adjusts a power supply according to a use, and aims at offering the wrist watch mold pocket communication terminal which can respond to required power consumption.

[0005]

[Means for Solving the Problem] A band portion with which an arm is equipped according to this invention in order to attain the above-mentioned purpose, In a wrist watch mold pocket communication terminal in which a mode change with a talking mode which is constituted from a pocket communication terminal portion in which desorption is possible by band portion, and functions also with small power, and browser mode in which large power is required is possible A wrist watch mold pocket communication terminal characterized by providing the 1st dc-battery into a band portion, and providing the 2nd dc-battery into a pocket communication terminal portion can be offered.

[0006] Moreover, according to this invention, it is possible for the 1st dc-battery and 2nd dc-battery to be individual, and to use it. Moreover, according to this invention, it is also possible to combine and use the 1st dc-battery and 2nd dc-battery. Moreover, according to this invention, charge to the 2nd dc-battery from the 1st dc-battery is possible. Moreover, according to this invention, the 1st dc-battery uses a lithium polymer as a component. Moreover, about a wrist watch mold pocket communication terminal by this invention, in a talking mode, a message while moving in the inside of a service area is possible, and a message while moving in browser mode in the inside of a service area, and access to other information networks containing the Internet are possible.

[0007]

[Embodiment of the Invention] Next, with reference to drawing 1 -2 and drawing 4 , the wrist watch mold pocket communication terminal by this invention is explained to details. Drawing 1 and drawing 4 are the whole wrist watch mold pocket communication terminal perspective diagrams by this invention, and drawing 2 is a perspective diagram at the time of wrist watch mold pocket communication terminal wearing by this invention. In drawing 1 , the wrist watch mold pocket communication terminal 100 which is the gestalt of operation of the 1st of this invention consists of a band portion 101 and a pocket communication terminal portion 102 in which desorption is possible into the band portion 101. Like the band portion of a wrist watch, since a wrist watch mold pocket communication terminal main part is fixed to

a user's arm, the band portion 101 is used. Furthermore, this band portion 101 uses a lithium polymer as a component, and also has a function as the 1st dc-battery. On the other hand, the key matrix 103, a display 104, the lock discharge section 105, the loudspeaker 106, the microphone, and the side carbon button (not shown [ both ]) are prepared in the pocket communication terminal portion 102. The key matrix 103 has a playback key, a handsfree key, a registration key, the \* key, a ten key, etc., and it is used in order to input various kinds of information. The various information corresponding to the input signal from the contents of an input from the key matrix 103 and other communication devices is displayed on a display 104.

[0008] When not using the pocket communication terminal portion 102, the display 104 is arranged in the form where it hides in the bottom of the field which has the key matrix 103, and is in the condition that it is not visible from an outside. Therefore, it is necessary to make a display 104 visible from an outside at the time of pocket communication terminal partial 102 use. In that case, a display 104 makes the field which has the key matrix 103 to the location which is visible from an outside slide. Therefore, the lock discharge section 105 is formed in order to cancel the lock of a slide. Furthermore, the pocket communication terminal portion 102 is also equipped with the 2nd dc-battery (not shown). The 2nd dc-battery has an accumulation-of-electricity capacity (about 500 mAH(s)) almost comparable as the dc-battery of the conventional wrist watch mold pocket communication terminal. The accumulation-of-electricity capacity (about 700mAH(s)- 1000 mAH) of the 1st dc-battery which is also the band portion 101 on the other hand is large as compared with the accumulation-of-electricity capacity of the 2nd dc-battery.

[0009] The reason for having had the 1st dc-battery and 2nd dc-battery is that a difference is in the magnitude of the power consumption in a talking mode, and the power consumption in browser mode. Here, a talking mode is the mode which can talk over the telephone while a wrist watch mold pocket communication terminal moves in the inside of a service area, and browser mode is the mode as for which message while moving in the inside of a service area, and access to the Internet are made to coincidence.

[0010] It is turned [ all of except for the devices (a loudspeaker 106, a microphone, RF circuit, baseband function, etc.) in which a function required for a message is filled ] off at the time of a talking mode. Therefore, there is comparatively little power consumption at the time of a talking mode. On the other hand, in addition to the devices (a loudspeaker 106, a microphone, RF circuit, baseband function, etc.) in which a function required for a message is filled, the device for sounding ringing tone and the device for filling the function (the lighting of a display, the display of the sent image data, playback of the voice data sent with image data) of a display 104 are also turned on at the time of browser mode. Therefore, the power consumption at the time of browser mode becomes large as compared with the power consumption at the time of a talking mode.

[0011] As shown in drawing 2 (a), the pocket communication terminal portion 102 can be removed from the band portion 101. When the pocket communication terminal portion 102 is removed and used from the band portion 101, only the 2nd built-in dc-battery is usable. Therefore, like drawing 2 (a), where the pocket communication terminal portion 102 is removed from the band portion 101, only the 2nd dc-battery power (about 500 mAH(s)) is usable. Since power consumption is comparatively small, even if it uses the pocket communication terminal portion 102 in the condition of having removed from the band portion 101, like drawing 2 (a), a prolonged message is possible for the time of a talking mode. The communication link of long

duration is impossible only with the 2nd dc-battery power built in on the other hand at the time of the large browser mode of power consumption (about 30 minutes).

Therefore, the communication link of a long time [ way / which is used attaching the pocket communication terminal portion 102 in the band portion 101 like drawing 2 (b) ] is more possible than the case where the pocket communication terminal portion 102 is used in the condition of having removed from the band portion 101, like drawing 2 (a). It is because the 1st dc-battery which is the band portion 101 can also be used in addition to the 2nd dc-battery built in the pocket communication terminal portion 102 in this case.

[0012] The dc-battery power which can be used in the state of drawing 2 (b) is about 2.4 to 3.0 times the dc-battery power which can be used in the state of drawing 2 (a). Therefore, the communication link (about 70 - 90 minutes) of long duration is attained also in the large browser mode of power consumption. Moreover, it is clear that can also use a talking mode and duration of a call also increases about 2.4 to 3.0 times like browser mode. Furthermore, when the 2nd dc-battery power built in the pocket communication terminal portion 102 runs short, or when it is lost, it is also possible to charge to the 2nd dc-battery from the 1st dc-battery which is the band portion 101. Moreover, as shown in drawing 4 , it is also possible to use the thing of the different quality of the material from a lithium polymer for the band portion 401 as a spare. If there is such a spare, also while having charged the band portion 101 which is the 1st dc-battery, it will become possible to use the pocket communication terminal portion 102.

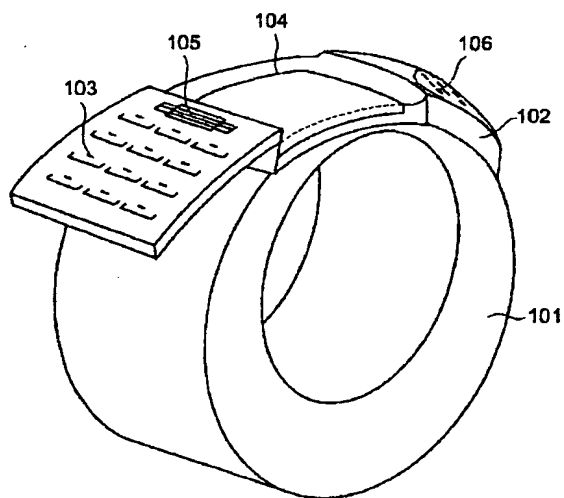
[0013]

[Effect of the Invention] Thus, according to this invention, by using a dc-battery which is different by browser mode and the talking mode, a power supply can be adjusted according to a use and the wrist watch mold pocket communication terminal which can respond to required power consumption can be offered.

## Claims

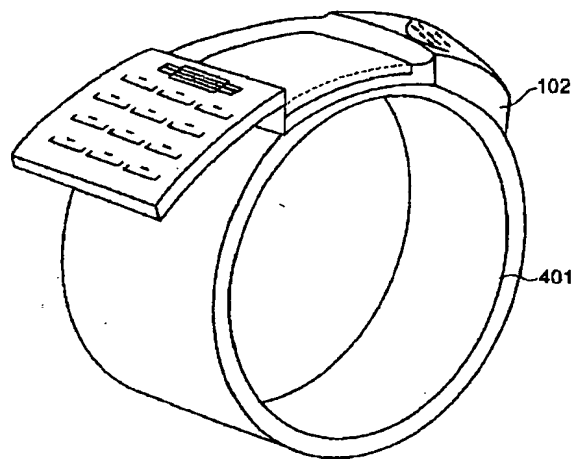
- [Claim 1] A wrist watch mold pocket communication terminal characterized by to provide the 1st dc-battery into said band portion, and to provide the 2nd dc-battery into said pocket communication terminal portion in a wrist watch mold pocket communication terminal in which a mode change with a talking mode which consists of a band portion with which an arm is equipped, and a pocket communication terminal portion in which desorption is possible into said band portion, and functions also with small power, and browser mode in which large power is required is possible.
- [Claim 2] It is the wrist watch mold pocket communication terminal characterized by it being possible for said 1st dc-battery and said 2nd dc-battery to be individual in a wrist watch mold pocket communication terminal according to claim 1, and to use it.
- [Claim 3] It is the wrist watch mold pocket communication terminal characterized by it being possible to use said 1st dc-battery and said 2nd dc-battery, combining in a wrist watch mold pocket communication terminal according to claim 1.
- [Claim 4] A wrist watch mold pocket communication terminal characterized by charge to said 2nd dc-battery from said 1st dc-battery being possible in a wrist watch mold pocket communication terminal according to claim 1.
- [Claim 5] It is the wrist watch mold pocket communication terminal characterized by said 1st dc-battery using a lithium polymer as a component in a wrist watch mold pocket communication terminal according to claim 1.
- [Claim 6] A wrist watch mold pocket communication terminal characterized by a message while moving in the inside of a service area being possible in said talking mode in a wrist watch mold pocket communication terminal according to claim 1, and a message while moving in said browser mode in the inside of a service area and access to other information networks containing the Internet being possible.

【図1】

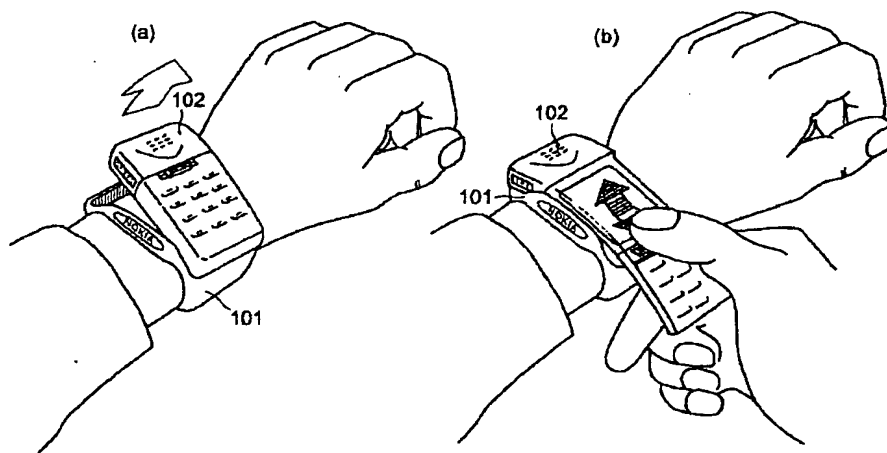


100

【図4】



【図2】



【図3】

